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New Records of Birds from the Hawaiian Leeward Islands [1]

By Roger B. Clapp and Paul W. Woodward [2]

In the spring of 1963 the Pacific Ocean Biological Survey Program (POBSP) of the Smithsonian Institution began periodic surveys of the islands of the Central Pacific between latitudes 30° N and 10° S and between longitudes 150° and 180° W. The surveys were designed to amass varied and detailed data on the biota of the area in order that a much more complete understanding of its nature might be developed than was previously possible. One of the Program goals was simply to discover what birds occurred on the different islands and to determine more precisely their exact status on each island. (For a more thorough discussion of POBSP aims and objectives, see Humphrey, 1965.)

From February 1963 through March 1967 POBSP field workers or research teams participated in 18 expeditions to one or more of the Hawaiian Leeward Islands and made biological surveys of them for periods of from one to six days. For much of the entire period a permanent field station was operated on Kure Atoll, and three more extended surveys, each of slightly more than a month's duration, were made on French Frigate Shoals.

As one result of these surveys, a great many new distributional records were obtained. This paper presents new and unusual records of

[1] Paper No. 19, Pacific Ocean Biological Survey Program.

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birds from the Hawaiian Leeward Islands of Nihoa, Necker, French Frigate Shoals, Gardner Pinnacles, Laysan, Lisianski, Pearl and Hermes Reef, Midway, and Kure. The records here presented are primarily of specimens collected from February 1963 through March 1967 by members of the Pacific Ocean Biological Survey Program although we include some well-documented sight records as well. In addition, Dr. Alexander Wetmore, who visited the Hawaiian Leewards in 1923 (see Wetmore, 1925), has kindly permitted us to report several previously unreported specimens obtained by him during his trip.

Common and scientific names are taken from the "American Ornithological Union Checklist" (AOU, 1957), Vaurie (1959, 1965), and King (1967). Procellariiformes, gulls, and terns are from King, and all other species are from the "A. O. U. Checklist" or, when not in that list, from Vaurie. Major alternatives of the common names are listed in parentheses.

Order of the species accounts follows Peter's "Checklist" (1931–1967) and Mayr and Greenway (1956), with the exception of the Procellariiformes, which conform to the recent recommendations of W. B. Alexander, et al. (1965).

Whenever possible, the age of vagrant birds was determined to discover whether their occurrence might be restricted to a particular age-class. Many of the vagrants, however, were found as long-dead, very partial remains; consequently, no such determinations could be made.

A number of the shorebirds collected during the fall could be aged by the shape of the tibio-tarsus. In young of the year this bone becomes gradually thicker from the distal to the proximal end, whereas, in adults, the sides of the legs are almost parallel for most of their length and then flare out abruptly at the proximal end (R. Zusi, pers. comm.). This character is not reliable during the spring and is considerably more difficult to determine in the smaller species of shorebirds. We thus include here ages for only those birds for which we believe that our age-determinations are completely reliable.

Gulls and ducks were aged by plumage characters when possible. Kortright (1942) and the "British Handbook" (Witherby, 1939) were used as sources of age characters for ducks; the latter work (Witherby, 1941) and Dwight (1901) were used for gulls. Molt terminology in these sources and in this paper conforms to Dwight (1900, 1901).

Many of the plumages observed in the specimens of gulls and ducks are aberrant in that molt in some feather tracts was considerably retarded, presumably in response to abnormal environmental or physiological conditions.

Table 1, at the end of the species accounts, summarizes the new distributional records of birds from the Hawaiian Leeward Islands.

ACKNOWLEDGMENTS.—The authors gratefully acknowledge those members of the Pacific Ocean Biological Survey Program who made the collections and observations upon which this paper is based. These people are referred to by last name only in the species accounts: A. Binion Amerson, Jr., Alan H. Anderson, David A. Bratley, Richard S. Crossin, Paul G. Dumont, Robert R. Fleet, C. Douglas Hackman, Brian A. Harrington, Lawrence N. Huber, J. Vincent Hoeman, Cameron B. Kepler, Warren B. King, T. James Lewis, James P. Ludwig, Robert W. McFarlane, Ralph W. Schreiber, Fred C. Sibley, Dennis L. Stadel, Robert S. Standen, Max C. Thompson, Jeffrey P. Tordoff, William O. Wirtz, II, and George S. Wislocki.

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DISCUSSION.—One hundred new distributional records of 68 species of birds are reported herein, including 16 records of species previously unrecorded from either the main Hawaiian Islands or the Hawaiian Leeward Islands. In addition, specimen verification is given for eight species whose presence in the Hawaiian or Leeward Islands heretofore has been based solely on sight records.

Eighty of the 100 new records are from but four islands: Gardner Pinnacles, Pearl and Hermes, Kure, and Midway. This preponderance of records from the first three of these islands is in part an indication of the relative frequency with which these islands had been visited by observers in the past but reflects to only a slightly lesser degree differences in habitat from island to island.

Kure, Pearl and Hermes, and Gardner Pinnacles have been surveyed very infrequently prior to POBSP visits and few of these visits were reported subsequently. Midway, at the other extreme, has been surveyed and reported upon more frequently than any other Leeward Island. Nonetheless, continued observation by the POBSP on this island has resulted in more new records than for any other islands but Kure and Pearl and Hermes.

The presence of certain habitats on Midway, those presumably most attractive to the kinds of migrants and vagrants (e.g., ducks,

shorebirds, gulls) of most frequent occurrence in the Leewards, certainly accounts in large part for the increment of new records. Near the overrun area of the main airstrip is a series of small ponds that probably attract wandering ducks and gulls. These ponds almost always have muddy margins that are particularly attractive to shorebirds. Adjacent to these ponds is a several-hundred-yard-long strip of low ground, often marshy during rainy periods, that, at times, has ducks and large numbers of shorebirds foraging on and around it. The ponds and the area nearby, from which most new records for Midway have been taken, are referred to as the "overrun ponds" and "overrun area" in the species accounts.

The new and unusual records obtained by the POBSP fall into two categories. One group of records is of species that regularly occur in the Hawaiian chain but which represent new records for individual islands. These records of migrants and winter residents or breeding birds scarcely can be considered unusual, but it is worthwhile to document their occurrence where heretofore unrecorded. Some of these constitute not only new distributional records but also breeding locality records: Christmas shearwater (*Puffinus nativitatus*), Bulwer's petrel (*Bulweria bulwerii*), sooty storm petrel (*Oceanodroma tristrami*), red-tailed tropicbird (*Phaethon rubricauda*), brown booby (*Sula leucogaster*), gray-backed tern (*Sterna lunata*), brown noddy (*Anous stolidus*), and black noddy (*Anous tenuirostris*).

The other group of records is of species of uncommon or seldom documented occurrence in the Hawaiian Leeward Islands. These records consist of petrels, ducks, shorebirds, gulls, and a heterogenous group of accidentals, composed mainly of vagrant passeriforms but including wandering birds of prey, an alcid, and a coot. A large number of these forms are Palearctic in origin.

Some of the procellariiforms were birds that normally occur at sea in the vicinity of the Leewards and that washed up on the beach—northern fulmar (*Fulmarus glacialis*), sooty shearwater (*Puffinus griseus*), and Leach's petrel (*Oceanodroma leucorhoa*). Others had straggled far from their known range—little shearwater (*Puffinus assimilis*), Kermadec petrel (*Pterodroma neglecta*), and Murphy's petrel (*Pterodroma ultima*).

Of the migrant ducks, some records are of species that occur frequently in the main Hawaiian Islands in winter—American widgeon (*Mareca americana*) and shoveler (*Spatula clypeata* [see Medeiros, 1958]). These birds may have come from North America although the shovelers could have wandered eastward from the Old World. Other records involve species only known to breed in the Old World—garganey teal (*Anas querquedula*), European widgeon (*Anas penelope*), and tufted duck (*Aythya fuligula*), whereas the common teal (*Anas*

crecca) may have been either of North American or Asiatic derivation since specimen material was inadequate for subspecific determination.

Judging from their moderate to very heavy fat deposits, some of these ducks were strong and healthy—two common teal and a European widgeon. Most of the ducks, however, had little or no fat, were emaciated, or were found as beach-worn remains. This suggests that a majority of ducks reaching the islands fail to survive the winter. Tufted ducks, in particular, fared very badly. Only two of the eight specimens obtained were strong enough to fly. Three of the others were so weak that they were captured by hand and the remaining three were found dead.

Records of wandering and migrant shorebirds are comprised, in part, of species that, although on the "Hawaiian Check List" (Bryan, 1958) or its supplement (Udvardy, 1961b), are not verified by Hawaiian specimen records—greater yellowlegs (*Totanus melanoleucus*), lesser yellowlegs (*Totanus flavipes*), knot (*Calidris canutus*), and long-billed dowitcher (*Limnodromus scolopaceus*). Other shorebird records are of species previously unreported in the Hawaiian and Leeward Islands—dotterel (*Eudromias morinellus*), pintail snipe (*Capella stenura*), Polynesian tattler (*Heteroscelus brevipes*), short-billed dowitcher (*Limnodromus griseus*), marbled godwit (*Limosa fedoa*), ruff (*Philomachus pugnax*), and one species whose basis for inclusion in the Hawaiian fauna (AOU, 1957) we have not been able to discover: wood sandpiper (*Tringa glareola*). Five of these seven species breed primarily in the Old World. Since many of the sight records of shorebird species reported from the main Hawaiian Islands by Bryan and Udvardy and in the recent issues of "Elepaio," are North American species that may be confused easily with Old World species (e.g., *Charadrius semipalmatus* with *C. hiaticula*, *Erolia minutilla* with *E. temmincki*, "common snipe" with several Old World *Capella* species), it is important that such records be substantiated by specimens.

Gulls, particularly immatures, are frequent wanderers to the Hawaiian and Leeward Islands. Of the seven species of gulls collected in the Hawaiian Leeward Islands by the POBSP, only one, the slaty-backed gull (*Larus schistisagus*), is previously unknown from the area. In this group of birds, as in the shorebirds and ducks, both Old and New World species are present. Two species, Franklin's gull (*L. pipixcan*) and ring-billed gull (*L. delawarensis*), are North American; two forms, herring gull (*L. argentatus vegae*) and slaty-backed gull (*L. schistisagus*), are Palearctic; and three, glaucous-winged gull (*L. glaucescens*), glaucous gull (*L. hyperboreus*), and black-legged kittiwake (*Rissa tridactyla*), are Holarctic.

Twelve of the 39 gull specimens were found dead, either recently dead or as partial remains, indicating that many (if not most) of the

gulls die on the islands to which they have wandered. The larger gulls (herring, glaucous, glaucous-winged, slaty-backed) apparently survive longer on the Leeward Islands than do the smaller species (ring-billed, Franklin's, and black-legged kittiwake). Of the 31 specimens of larger gulls, only six were found dead (two glaucous gulls and four glaucous-winged gulls). On the other hand, two of the eight smaller gulls (a ring-billed gull and a black-legged kittiwake) were alive when collected, and one of these, the kittiwake, was injured.

Thirty-four of the 39 gull specimens were subadult birds. Six of these 34 specimens were in too poor condition to allow accurate aging. Of the remaining 28, 10 were in first winter plumage, 13 were in first nuptial plumage, one was molting into second winter plumage, and four were in second winter plumage.

Frings (1965a, 1965b), Amadon (1965), and more recently, Sibley and McFarlane (in press) have discussed reasons why gulls have not become established on tropical oceanic islands. Frings has suggested that both nonadaptability to local food sources and inefficient production of fresh water by salt gland secretion may in part account for the absence of gulls on most oceanic islands. Amadon suggested that unavailability of food is the more probable cause of their absence. Sibley and McFarlane have discussed the problem at length, pointing out reasons why neither hypothesis is likely to be a wholly sufficient answer.

Of the remaining records, some species evidently wandered from the main Hawaiian Islands, where they have breeding populations—black-crowned night heron (*Nycticorax nycticorax*), American coot (*Fulica americana*), mockingbird (*Mimus polyglottos*), and house sparrow (*Passer domesticus*). One hawk (*Circus cyaneus hudsonius*) was of North American derivation but another (*Falco peregrinus pealei*?) was a North Pacific form. The alcid (horned puffin, *Fratercula corniculata*) may have come from either North America or Asia. The barn swallow (*Hirundo rustica gutteralis*), red-throated pipit (*Anthus cervinus*), water pipit (*Anthus spinoletta japonicus*), and skylark (*Alauda arvensis pekinensis*) are Palearctic forms, whereas the snow bunting (*Plectrophenax nivalis townsendi*) is represented by the Pribilof-Aleutian form.

Species Accounts

Northern Fulmar (Fulmar) — ***Fulmarus glacialis rodgersii***

POBSP personnel have obtained four fulmar specimens that washed up on the beach on Green Island, Kure Atoll, in early 1964. The first specimen (USNM 492919), collected Jan. 16, 1964, was the only one

fresh enough to skin. It was referred to the race *F. g. rodgersii* by Sundell. The other three specimens (USNM 498110, February 26; USNM 498111, March 28; and USNM 498112, March 30) were skeletonized.

On Sand Island, Midway Atoll, Bratley collected two partially decomposed fulmars that he found 100 feet apart on the north beach Aug. 15, 1964. Both birds were preserved subsequently as skeletons (USNM 498113, 498114).

The earliest record from the Hawaiian area, however, is a hitherto unreported beach-dried mummy (USNM 489327) found on the beach of Tern Island, French Frigate Shoals, and collected by Wetmore, June 25, 1923.

Fulmars have been reported previously from Oahu (King, 1959a) and from Midway Atoll (Fisher, 1965), but none have been reported previously from either Kure Atoll or French Frigate Shoals.

Fulmarus g. rodgersii breeds from Siberia to the Pribilof and Aleutian Islands (AOU, 1957).

Murphy's Petrel ***Pterodroma ultima***

A female (USNM 492988) collected by Ludwig, Oct. 7, 1963, on Green Island, Kure Atoll, and another female (USNM 497224) collected by Harrington as it flew over Tern Island, French Frigate Shoals, on Sept. 9, 1966, are being reported by Gould and King (in press). There are no previous records of this petrel from any of the islands of the main Hawaiian or Hawaiian Leeward groups.

This little-known petrel breeds only on some of the islands of the Austral and Tuamotu groups in the Central Pacific (Murphy, 1952).

Kermadec Petrel ***Pterodroma neglecta***

A male (USNM 300679) collected on Green Island, Kure Atoll, Apr. 30, 1923, by Wetmore is being reported by Gould and King (in press). The present specimen constitutes the first specimen record from any of the islands of the Hawaiian area.

This species nests on islands in the South Pacific from the Juan Fernandez Islands in the east to Lord Howe Island in the west and recently has been seen frequently at sea in the Central Pacific (Gould and King, ibid.).

Bulwer's Petrel ***Bulweria bulwerii***

Sibley and Amerson estimated that an adult population of 25 Bulwer's petrels was present on Gardner Pinnacles June 16, 1963. Ten nests were found and all contained eggs.

POBSP personnel have found Bulwer's petrels on Southeast Island, Pearl and Hermes Reef, on three separate occasions. Fifteen adults and three nests with eggs were found June 18–22, 1963: five adults were seen Aug. 16–19, 1964; and one large young was found Sept. 25–27, 1966.

This species previously has been reported breeding on Nihoa, Necker, Laysan, Midway, and French Frigate Shoals in the Hawaiian Leewards (Bailey, 1956; Richardson, 1957), but it has not been reported previously from either Gardner Pinnacles or Pearl and Hermes Reef.

Sooty Shearwater ***Puffinus griseus***

Bratley found a sooty shearwater carcass (USNM 496201) washed up on the beach May 18, 1965, on Green Island, Kure Atoll. Six more specimens were taken at the same locality by Woodward in the spring of 1966 (USNM 496557, Apr. 23, 1966; USNM 498253, 498254, May 4, 1966; USNM 496558, May 19, 1966; USNM 496559, 496560, May 28, 1966). Five of these specimens were dead birds that washed up on the beach. One specimen (USNM 496558) was captured alive as it swam in the lagoon.

This species breeds in Tasmania, on the islands in the New Zealand area, and on islands near Cape Horn (AOU, 1957). Sooty shearwaters are regular migrants through the Central Pacific and have been reported previously from Oahu, in the main Hawaiian Islands (Woodside and Walker, 1964), and from Midway Atoll (Kenyon and Rice, 1957; Fisher, 1965), and Laysan Island (Bailey, 1956) in the Hawaiian Leeward Islands. They have not been recorded previously from Kure Atoll.

Christmas Shearwater ***Puffinus nativitatus***

The POBSP collected specimens of Christmas shearwaters from one island of the Leeward Islands from which they had not been recorded before. These specimens (USNM 492965, Mar. 7, 1963; USNM 492966, Feb. 26, 1963) were collected on Southeast Island, Pearl and Hermes Reef.

Since there are no previous records for this island and since Robbins (1966) gave no details of his observations of breeding birds on Green Island, Kure Atoll, we include here a short summary of POBSP breeding data from these islands for the period 1964–1966 as follows:

Kure Atoll, Green Island: Christmas shearwaters are present on Kure Atoll from March to October, reaching their peak numbers (about 100 adults) during the peak of the nesting season, which occurs from May through August. Nests with eggs have been found in the

months of April, May, and June; downy chicks were present in June and July; and nearly fledged birds were present in September and October. The breeding cycle as indicated by our data is quite similar to that reported for other islands in the Leeward chain.

Pearl and Hermes Reef, Southeast Island: Far fewer Christmas shearwaters occur on Pearl and Hermes Reef than on Kure Atoll. The largest number of adults present was about 20 birds Sept. 25–27, 1966, with smaller numbers having been recorded in the months of March, June, and August. Nests have been found on two occasions (a nest containing an egg June 18–22, 1963, and three nests with young Sept. 25–27, 1966).

This species previously has been reported breeding on Nihoa, French Frigate Shoals, Laysan, Lisianski, Midway, and Kure in the Hawaiian Leeward Chain (Richardson, 1957; Robbins, 1966).

Little Shearwater ***Puffinus assimilis (assimilis?)***

On Feb. 18, 1963, Amerson collected a male little shearwater (USNM 492974) in a colony of Bonin petrels (*Pterodroma hypoleuca*) near the Chief Petty Officers' Club on Sand Island, Midway Atoll. The testes of the specimen were 4 mm long, indicating that the bird was not breeding. This specimen constitutes not only the first record for any of the Hawaiian Islands, but it is also the first record for the North Pacific Ocean.

Dr. Alexander Wetmore, who compared the specimen with material at the American Museum of Natural History, informed us that in most regards the present specimen matches those of the race *P. a. assimilis* but that it has more white on the under-tail coverts than is typical of *P. a. assimilis*. *Puffinus assimilis* breeds on the Norfolk and Lord Howe Islands in the southwestern Pacific (Murphy, 1927).

Leach's Storm Petrel (Leach's Petrel) ***Oceanodroma leucorhoa leucorhoa***

On May 10, 1964, Wislocki found a Leach's storm petrel (USNM 494243) washed up on the beach of Green Island, Kure Atoll. The specimen was identified subsequently as *O. l. leucorhoa* by Gould. A second Leach's storm petrel that washed up on the beach was collected at the same locality Dec. 21, 1964, and was preserved subsequently as an alcoholic (USNM 503371). No Leach's storm petrels have been reported hitherto from Kure Atoll or any of the other Hawaiian Leeward Islands.

Bryan (1965) reported another specimen that washed up on the beach on Oahu and that was collected Oct. 26, 1964. Still another specimen that washed up on the beach at Oahu was collected Jan. 5, 1967 (Throp, 1967).

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These specimens and others taken at sea near the main Hawaiian Islands (POBSP, unpubl. data) suggest that some earlier sight records attributed to the very similar Harcourt's storm petrel (*Oceanodroma castro*) may in fact have been records of Leach's storm petrel (e.g., records by Munro at sea near Necker Island and Gardner Pinnacles and by Palmer between Kauai and Niihau [Munro, 1944]).

The subspecies *O. l. leucorhoa* breeds on the coast of Japan and in the Kurile, Komandorskie, and Aleutian Islands (AOU, 1957). It winters south to at least the equator in the Central Pacific (P. J. Gould, pers. comm.) and even further south in the eastern Pacific (G. E. Watson, pers. comm.).

Sooty Storm Petrel ***Oceanodroma tristrami***
(Tristram's Petrel)

POBSP personnel have collected five sooty storm petrel specimens on Green Island, Kure Atoll. The first specimen (USNM 493026, Jan. 1, 1964), a male with enlarged gonads, was one of two birds that were observed digging at the base of a clump of grass (*Lepturus*). Two other specimens collected, a female (USNM 494358, Mar. 1, 1965), and a male (USNM 496223, Dec. 12, 1965) had decidedly enlarged gonads. A female (USNM 497297) collected Jan. 3, 1967, had only slightly enlarged gonads.

Other sooty storm petrels were seen occasionally from 1963 to 1967 in the months from November through January, but no nests have been found. Two sooty storm petrels were seen excavating a burrow on Apr. 2, 1964. One bird examined in the field during the period from Dec. 30, 1966 through Jan. 5, 1967 had a completely bare brood patch and another had a partially bare brood patch. It seems very likely that one or more pairs may have nested on Kure Atoll in the last four years.

On Mar. 14, 1967, Hackman found two sooty storm petrel chicks, one downy and very small, the other about three-quarters grown, on Whale-Skate Island, French Frigate Shoals. Both chicks were found in shallow burrows under the grass.

In the Hawaiian Leeward Chain this species has been reported breeding on Laysan, Pearl and Hermes, Midway, and perhaps Necker (Richardson, 1957) and has been reported from Nihoa as well (Bryan and Greenway, 1944). None have been reported previously from either Kure Atoll or French Frigate Shoals.

Red-billed Tropicbird ***Phaethon aethereus mesonauta***

On June 15, 1923, Wetmore collected an immature female red-billed tropicbird (USNM 300977) as it flew over Nihoa Island. The only other record from the vicinity of the Hawaiian Islands is Moynihan's

(1957) sight record of two red-billed tropicbirds on Sand Island, Johnston Atoll, in early April 1957.

In the Pacific this species breeds from the Gulf of California and the Revilla Gigedo Islands to the Galapagos and islands near the coast of Ecuador (AOU, 1957).

Red-tailed Tropicbird ***Phaethon rubricauda***

Munro (1942) reported that he had seen "tropicbirds" flying over Pearl and Hermes Reef in July 1891. We have found no other literature records pertaining to the occurrence of this species on Pearl and Hermes Reef. Red-tailed tropicbirds have been reported previously from all the rest of the Hawaiian Leeward Islands (Bryan and Greenway, 1944; Richardson, 1957; Kenyon and Rice, 1958). A summary of POBSP observations of red-tailed tropicbirds on Pearl and Hermes Reef is given for each island as follows:

Southeast Island: An estimated 15 adults present Feb. 28–Mar. 8, 1963; about 80 adults, five nestlings, and 24 eggs June 18–22, 1963; six adults and two eggs Mar. 13, 1964; 15 adults, three nestlings, and three eggs Aug. 16–19, 1964; 15 adults and three nestlings Sept. 16–17, 1964; 15 adults and three nestlings Mar. 15–17, 1965; 10–15 adults and four eggs Sept. 7, 1966.

North Island: About 60 adults, four nestlings, and 15 eggs June 23–24, 1963; about 40 adults, 15 nestlings, and one egg Aug. 19–20, 1964; 10 adults and one nestling Sept. 17, 1964; 5–10 adults and two eggs Mar. 17–18, 1965; about 10 adults and two eggs Mar. 21–23, 1967.

Seal Island: Twenty adults and six eggs June 26, 1963; 15 adults and two nestlings Aug. 18, 1964.

Grass Island: Five adults and two eggs June 26–27, 1963; eight adults and one nestling Aug. 18, 1964; one seen over island Mar. 22, 1967.

White-tailed Tropicbird ***Phaethon lepturus***

Kepler observed a white-tailed tropicbird as it flew low over the east beach of Green Island, Kure Atoll, Feb. 6, 1965. This species breeds in the Hawaiian Islands (AOU, 1957), has been reported breeding on Midway Atoll (Bailey, 1956), but has not been reported previously from Kure Atoll.

Red-footed Booby ***Sula sula***

Sibley and Amerson observed an immature or subadult red-footed booby roosting on Gardner Pinnacles, June 16, 1963. The red-footed booby, a species of pantropical distribution in the world's oceans,

breeds commonly on most of the islands of the Hawaiian Leeward Chain (Richardson, 1957), but its occurrence on Gardner Pinnacles has not been reported previously.

Brown Booby ***Sula leucogaster***

Sibley and Amerson found a brown booby incubating two eggs on Gardner Pinnacles, June 16, 1963. The occurrence and breeding of this species on Gardner Pinnacles has not been reported previously. The brown booby, a widespread inhabitant of tropical oceans, has been reported breeding on most of the other islands of the Hawaiian Leeward Chain (Richardson, 1957).

Black-crowned Night Heron ***Nycticorax nycticorax (hoactli?)***

Woodward found the partially decomposed remains (USNM 496776) of a black-crowned night heron in *Scaevola* bushes on Green Island, Kure Atoll, June 3, 1966. The specimen, an adult, has the following measurements: wing (chord) 295 mm, culmen 77 mm, and tarsus 80 mm. These measurements are well within the range given for female *Nycticorax n. hoactli* by Peters (1930) and are larger than those given for either sex of *N. n. nycticorax*. The race *N. n. hoactli* breeds in the main Hawaiian Islands and has wandered previously to Midway Atoll, 57 miles to the east of Kure (Bryan and Greenway, 1944).

Garganey Teal ***Anas querquedula***

On Sept. 17, 1963, Ludwig collected two juvenile garganey teal, a male and a female, from an overrun pond on Sand Island, Midway Atoll (USNM 493451, 493452). These birds constitute the first specimen records from any of the islands of the Hawaiian area although this teal has been seen on two other occasions. Walker (1961) reported seeing one at a pond near Hilo, Hawaii, Mar. 20, 1961, and Gauthey (1967) reported a drake seen at Kahuku, Oahu, Mar. 21, 1967.

This species breeds across northern Eurasia and winters from northern Africa and the Philippines south to equatorial Africa, the Seychelles, southern Asia, and casually to Australia (Vaurie, 1965).

Common Teal ***Anas crecca***
(Green-winged Teal)

In 1963 Ludwig collected four teal from the overrun ponds on Sand Island, Midway Atoll, two, a male and a female, on November 13 (USNM 493479, 493480) and two moderately fat females on December 4 (USNM 493455, 493456). At least five more teal were present.

Since the specimens are all juveniles molting into their first winter plumage, no subspecific identifications can be made.

In years past specimens have been collected on Laysan, Maui, and Molokai (Bryan and Greenway, 1944). At least 15 sight records of teal on Oahu, Maui, and Hawaii have appeared in the "Elepaio" since 1940, indicating that these teal are probably regular visitors to the main Hawaiian Islands.

Teal, either *A. c. crecca* or *A. c. carolinensis*, previously have been reported only from Laysan and Midway in the Hawaiian Leeward Islands. Rothschild (1893–1900) reported that Schauinsland had collected a female on Laysan, Oct. 27, 1896. Fisher (1965) reported that small groups of three to eight birds are not uncommon on the brackish pond at Sand Island, Midway Atoll.

This species breeds across Eurasia and North America (AOU, 1957).

European Widgeon ***Mareca penelope***

Clapp collected a female, an adult molting into winter plumage, on Sand Island, Midway Atoll, Jan. 12, 1965 (USNM 493458). On Green Island, Kure Atoll, an emaciated second winter female was captured by Coast Guard personnel Nov. 10, 1964 (USNM 494359), and Lewis shot a first winter female there on Nov. 14, 1965 (USNM 496208). These specimens are not only the first records for Kure and Midway Atolls, but also they are the first specimens collected on any of the islands of the Hawaiian area.

This Eurasian species is a regular visitor to both coasts of North America (Vaurie, 1965) and has been seen on Oahu and Hawaii (Udvardy, 1961b).

American Widgeon ***Mareca americana***

Ludwig found the remains of an American widgeon at an overrun pond on Sand Island, Midway Atoll, Dec. 4, 1963 (USNM 496202). On Jan. 12, 1964, Clapp saw four more American widgeons in the same area and collected a very fat adult male (USNM 493457) that was molting into winter plumage.

These specimens are the first that have been collected on Midway, but Kenyon and Rice (1957) saw at least two birds of this species on Eastern Island, Midway Atoll, during the winter of 1956–57. Two more were seen by Fisher (1965) on Sand Island, Nov. 30, 1963. Laysan Island is the only other island in the Hawaiian Leewards on which an American widgeon specimen has been taken (Bryan and Greenway, 1944).

This duck breeds primarily in northwestern North America from Alaska to Wisconsin south to Colorado and northeastern California

(AOU, 1957) and is a regular winter visitor in small numbers in the main Hawaiian Islands (Udvardy, 1961a).

Shoveler ***Spatula clypeata***

Ludwig saw two shovelers Dec. 4, 1963, on Sand Island, Midway Atoll. During the rest of the winter shovelers were seen there at least six times by POBSP personnel and yet another was seen there in mid-January 1966. On Apr. 30, 1964, Wislocki collected a male and a female (USNM 493584, 493585) both thin, second winter birds. These birds constitute the first specimen records from Midway Atoll.

The only other island in the Hawaiian Leewards from which shovelers are known is Laysan, where several sight records and one specimen have been obtained (Bailey, 1956). To these records we add a POBSP sight record of three shovelers that were seen on the small pond north of the lagoon Oct. 22, 1966.

This species breeds mainly in northern North America, northern Europe, and northern Asia, and is of casual occurrence in the main Hawaiian Islands (AOU, 1957).

Tufted Duck ***Aythya fuligula***

On Oct. 29, 1963, Wirtz caught an emaciated female tufted duck by hand at Green Island, Kure Atoll (USNM 493448). During the fall and winter of 1963, Clapp and Ludwig collected four of at least seven seen on the overrun ponds of Sand Island, Midway Atoll: November 13, ♀, USNM 493828; December 2, ♀, USNM 493450; and December 4, ♂, ?USNM 493449, 498077. These birds were either sick and emaciated or found dead.

The following fall Wirtz collected two more tufted ducks in the same area. One was shot Oct. 30, 1964 (?USNM 494360) and the other was found dead Nov. 1, 1964 (?USNM 498125).

Kepler saw another in the overrun ponds Oct. 25, 1965, and on Jan. 7, 1967, Huber found a dried carcass of yet another tufted duck (?USNM 497500) near the reservoir between the runways.

Those specimens that were preserved as skins (493448–493450, 493828, 494360) are all juveniles, many of which exhibit a considerably retarded molt.

The only other records from the Hawaiian Leewards are those of Fisher (1960, 1965). He shot an emaciated male on Dec. 5, 1959, at Sand Island, Midway Atoll, and saw five others there in December 1963, some of which are probably the same birds as those reported above.

The tufted duck breeds from Iceland and the Scandinavian Peninsula across northern Asia south to central Europe and central Asia.

It has been recorded as a vagrant in the Aleutian and Pribilof Islands (AOU, 1957).

Marsh Hawk ***Circus cyaneus hudsonius***
(Hen Harrier)

On Oct. 30, 1964, Wirtz was told by military personnel on Midway Atoll that two hawks with rusty underparts, white rumps, and unbarred tails, had been seen recently on the atoll. The following day, he collected an immature female marsh hawk (USNM 494360) as it quartered low over *Scaevola* on Eastern Island, Midway Atoll. This subspecies is found from Alaska south to northern Baja California and in other parts of North America (AOU, 1957).

Henshaw (1902) reported that several specimens had been taken in Oahu but gave no further details. The present specimen apparently is the first seen or collected in the Hawaiian area since the late 19th century.

Peregrine Falcon ***Falco peregrinus (pealei?)***

Standen collected a female peregrine falcon (USNM 494363) Mar. 7, 1965, as it flew over the beach and over *Scaevola* bushes at the western end of Green Island, Kure Atoll. The specimen, which was badly worn, had very dark underparts and a wing measurement of 377 mm. Dr. Clayton M. White (in litt.) informed us that he identified the specimen as *F. p. pealei* on the basis of the extremely heavily marked flanks and thighs but that "in every other regard the specimen is a match for darker examples of *F. p. japonensis.*" *Falco p. japonensis* is a migratory race that breeds from northeastern Siberia to Kamchatka, the Kuriles, and northern Japan (Vaurie, 1965) while *F. p. pealei* is believed to be a more sedentary form that breeds in the Commander and Aleutian Islands and on islands off the coast of southern Alaska (Vaurie, 1965).

Another falcon, identified as a peregrine by POBSP personnel, was seen offshore of Lisianski Island Mar. 12, 1965, and over the island on March 13 and 14. On the 13th, a roost that the falcon evidently had been using was found in a *Casuarina* tree. The remains of many birds, at least three gray-backed terns (*Sterna lunata*), one black noddy (*Anous tenuirostris*), 47 ruddy turnstones (*Arenaria interpres*), and 20 golden plovers (*Pluvialis dominica*), found beneath the roost indicated that the falcon probably had been present on the island for at least a week or more before the arrival of the POBSP field party.

On Mar. 24, 1967, Hackman saw still another peregrine falcon, an adult, flying over the thickly inhabited section of Sand Island, Midway Atoll, accompanied by a large flock of white terns (*Gygis alba*). The

falcon had been present on the island since at least the preceding January (Hackman, pers. comm.).

Sight records of peregine falcons have been reported from Hawaii by Dunmire (1961) and from Oahu by Ord (1966), anonymously (1966), and by Donaghho (1967). None have been reported previously from any of the Hawaiian Leeward Islands and no specimens have been reported from any of the Hawaiian Islands.

American Coot ***Fulica americana***

Amerson found a dead coot (USNM 503194) Aug. 11, 1965, on Tern Island, French Frigate Shoals. The bird was found in low *Messerschmidia* over 100 feet from the beach, suggesting that it had not been washed up on the beach. Coots breed on the main Hawaiian Islands but have not been recorded previously from French Frigate Shoals.

Black-bellied Plover ***Squatarola squatarola***
(Grey Plover)

Clapp collected two black-bellied plovers, a male and a female (USNM 494120, 494121), Mar. 13, 1965, on the rocky east beach of Lisianski Island. A third specimen from Lisianski (USNM 496779), a female, was collected by Crossin June 18, 1966, as it fed along the shoreline. Single black-bellied plovers were seen by POBSP personnel on Green Island, Kure Atoll, in late October 1963 and in late May 1964.

This species breeds from north-central Russia to northern Alaska and southwestern Baffin Island and migrates along the Pacific coasts of both the Old and New Worlds (AOU, 1957). In the Leeward Hawaiian chain black-bellied plovers have been observed previously on Midway Atoll (Donaghho, 1953–1954) and have been collected previously on Laysan Island (Bailey, 1956). They have not been recorded previously from either Kure Atoll or Lisianski Island.

American Golden Plover ***Pluvialis dominica***

Fleet saw three American golden plovers on Necker Island Sept. 25, 1964, and Hackman saw two there Mar. 10, 1967. POBSP personnel have observed these plovers on the various islets of Pearl and Hermes Reef as follows:

Southeast Island: An estimated 40 present Feb. 26–Mar. 8, 1963; five seen June 18–22, 1963; three seen Mar. 13, 1964; one seen Aug. 16–19, 1964; about 150 present Sept. 16–17, 1964; "a few" seen Mar. 15–17, 1965; nine counted Mar. 21–22, 1965; about 175 present Sept. 27, 1966; 15–20 seen Mar. 21–23, 1967.

North Island: Three seen June 23–24, 1963; one seen Sept. 18, 1964; "a few" seen Mar. 17–18, 1965.

Seal Island: A "few" seen Mar. 18, 1965; two seen Mar. 22, 1967.

Kittery Island: A "few" seen Mar. 18, 1965; one seen Mar. 22, 1967.

Grass Island: A "few" seen Mar. 19, 1965; two seen Mar. 22, 1967.

This species is a regular winter visitor in the Hawaiian Leeward Islands (Bryan and Greenway, 1944), but it has not been reported previously from either Necker or Pearl and Hermes Reef.

Dotterel ***Eudromias morinellus***

Dumont captured an immature female dotterel (USNM 494299) in a mist net Sept. 9, 1964, on Green Island, Kure Atoll. The dotterel had been seen flying with flocks of golden plovers for several days before it was collected. No specimens or sight records of dotterels have been reported previously from any of the islands of the Hawaiian Leeward Islands nor from any of the main Hawaiian group. This species breeds in Siberia and has been reported previously as a straggler to Alaska and the northwestern United States. It has been recorded once breeding in Alaska (AOU, 1957).

Bar-tailed Godwit ***Limosa lapponica baueri***

Wislocki shot a female (USNM 493478) Mar. 11, 1964, on Lisianski Island. On May 9, 1966, Woodward saw two bar-tailed godwits on the southeast beach of Green Island, Kure Atoll. He subsequently collected one of them (USNM 496599), a male molting into nuptial plumage. These godwits have been seen thrice on Laysan by POBSP personnel. One was seen on the west shore of the lagoon Sept. 19, 1964; two were seen foraging together on the east and south beaches during the period Mar. 6–11, 1965; and another was observed Oct. 21, 1966.

Specimens of *L. l. baueri* have been reported previously from Laysan (Rothchild, 1893) and Midway (Fisher, 1960) in the Hawaiian Leewards, but none have been reported previously from either Kure or Lisianski. The race *L. l. baueri* breeds in Siberia and northern Alaska (Vaurie, 1965) and winters irregularly in small numbers in central Polynesia.

Marbled Godwit ***Limosa fedoa***

On Oct. 21, 1966, POBSP personnel saw two marbled godwits feeding in the lagoon at Laysan Island. One of them (USNM 496790) was then collected by Lewis and proved to be an immature male with heavy fat deposits. No sight records of specimens of marbled godwits

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have been reported previously from any of the islands of the Hawaiian area.

This species breeds from central Alaska and southern Manitoba south to central North Dakota and west-central Minnesota. It migrates along the California coast and through the western interior of North America (AOU, 1957).

Lesser Yellowlegs ***Totanus flavipes***

On Green Island, Kure Atoll, Aug. 30, 1964, Dumont captured an immature female lesser yellowlegs (USNM 494297) in a colony of sooty terns (*Sterna fuscata*). The bird was lying on the ground and was very emaciated.

Another lesser yellowlegs was seen by POBSP personnel on Laysan Island Oct. 21, 1966. This bird was feeding with wandering tattlers and two greater yellowlegs with which it was compared closely.

Sightings of lesser yellowlegs have been reported from the main Hawaiian or Leeward Islands on six previous occasions: once from Midway (Donaghho, 1953–1954), once from Maui (Bryan, 1962), and four times from Oahu (Hatch, 1953; anonymous, 1964; anonymous, 1967; Gauthey, 1967).

The specimen collected on Kure is the first reported from any of the islands of the Hawaiian area and also constitutes the first record from Kure Atoll. The sight record from Laysan is the first record of the lesser yellowleg's occurrence there.

This species breeds from north-central Alaska east to northern Ontario and northwestern Quebec and migrates south to the southern United States, Central America, Chile, and Argentina (AOU, 1957).

Greater Yellowlegs ***Totanus melanoleucus***

On Oct. 21, 1966, Harrington collected one (USNM 496780) of two greater yellowlegs from the lagoon at Laysan Island. The specimen, a very fat immature female, had been feeding with wandering tattlers (*Heteroscelus incanum*) when it was first seen.

Sight records of greater yellowlegs have been reported on seven previous occasions from the main Hawaiian Islands (see Udvardy, 1961b; anonymous, 1962; Ord, 1962) and once from Midway Atoll in the Hawaiian chain (Donaghho, 1953–1954). The bird taken on Laysan constitutes the first specimen record from either the main Hawaiian or Hawaiian Leeward Islands. Greater yellowlegs breed across northern North America from southern Alaska to Newfoundland and migrate south through the interior and coastal regions of the United States (AOU, 1957).

Wood Sandpiper *Tringa glareola*

Ludwig shot a male wood sandpiper (USNM 493333) that had very little fat on Dec. 11, 1963, in the overrun area on Sand Island, Midway Atoll. Another specimen (USNM 496777) of unknown sex and with no fat deposits was collected by Bratley on Green Island, Kure Atoll, May 22, 1965.

Wood sandpipers are reported as "accidental in Hawaii" (AOU, 1957), but we have been unable to discover the source of this statement. The present specimens confirm the occurrence of wood sandpipers in the Hawaiian Islands and, so far as we can determine, constitute the first distributional records from Kure and Midway Atolls.

Polynesian Tattler *Heteroscelus brevipes*
(Gray-rumped Sandpiper)

Wirtz collected a moderately fat, immature male (USNM 494300) on Eastern Island, Midway Atoll, Oct. 30, 1964. This specimen constitutes the first record of the occurrence of the Polynesian tattler in either the main Hawaiian or Hawaiian Leeward Islands. This species probably breeds in eastern Siberia and migrates south along the coasts of Japan, China, and Indochina. It winters in the Philippine and Caroline Islands south to New Guinea and Australia and has been recorded from the Pribilof Islands (AOU, 1957).

Wandering Tattler *Heteroscelus incanum*

Sibley and Amerson saw one wandering tattler on Gardner Pinnacles June 16, 1963. Wandering tattlers have been seen 15 times on the islets of Pearl and Hermes Reef. These observations are given by islet as follows:

Southeast Island: Three seen Feb. 26–Mar. 8, 1963; one seen June 18–22, 1963; one seen Mar. 13, 1964; one or two seen Aug. 16–19, 1964; five seen Sept. 16, 1964; one seen Mar. 21–22, 1965; four seen Sept. 25–27, 1966; two seen Mar. 21–23, 1967.

North Island: One seen June 23–24, 1963; one or two seen Aug. 19–20, 1964.

Grass Island: One seen June 26–27, 1963.

Seal Island: One seen Mar. 14, 1964; one seen Mar. 18, 1965; one seen Mar. 22, 1967.

Humphrey Island: One seen Aug. 18, 1964.

Kittery Island: One seen Mar. 22, 1967.

Even though wandering tattlers are regular winter residents on the Hawaiian Leeward Islands (Bryan and Greenway, 1944), their occur-

rence on Pearl and Hermes Reef and Gardner Pinnacles has not been documented previously.

Ruddy Turnstone (Turnstone) *Arenaria interpres*

Ruddy turnstones have been recorded on all POBSP visits to Pearl and Hermes Reef. A short summary of the number observed on each island is as follows:

Southeast Island: About 200 present Feb. 26–Mar. 8, 1963; 15–20 seen June 18–22, 1963; 178 counted Mar. 13, 1964; about 75 present Aug. 16–19, 1964; an estimated 500 present Sept. 16–17, 1964; "a few" seen Mar. 15–17, 1965; 86 counted Mar. 21–22, 1965; about 350 present Sept. 27, 1966; about 100 present Mar. 21–23, 1967.

North Island: 12 to 15 present June 23–24, 1963; about 75 present Sept. 17, 1964; 75–100 present Mar. 17–18, 1965.

Grass Island: One seen June 26–27, 1963; about 20 present Mar. 14, 1964; about 80 seen in one flock Mar. 22, 1967.

Humphrey Island: Fifteen present Sept. 17, 1964; "a few" seen Mar. 17, 1965.

Kittery Island: A "few" seen Mar. 17, 1965; one seen Mar. 22, 1965; 15 seen Mar. 22, 1967.

Planetree Island: One seen Mar. 22, 1965.

Sand Island: Four seen Mar. 22, 1965.

Seal Island: Twelve seen Mar. 22, 1965; 45 seen in one flock Mar. 22, 1967.

The one specimen (USNM 494155) collected by the POBSP on Pearl and Hermes Reef was taken on Southeast Island Aug. 17, 1964. Although ruddy turnstones are regular winter visitors to the islands of the Hawaiian Leeward Chain (Bryan and Greenway, 1944), their occurrence on Pearl and Hermes Reef has not been reported heretofore.

Long-billed Dowitcher *Limnodromus scolopaceus*

On Oct. 3, 1963, a moderately fat, immature male (USNM 493854) was collected by Ludwig on Green Island, Kure Atoll. Several other dowitchers of unknown species were seen on Green Island during the same month but were not collected. No long-billed dowitchers have been collected previously in either the main Hawaiian or Hawaiian Leeward Islands, and none have been reported previously from Kure Atoll.

From 1945 through May 1967, 15 sight records of dowitchers or long-billed dowitchers were published in the "Elepaio." Since none were confirmed by specimens, it is not possible to establish which of

the two sibling dowitcher species the records actually comprised although the long-billed dowitcher is included in the "Hawaiian Checklist" (Bryan, 1958).

This species breeds from northeastern Siberia and northwestern Alaska to MacKenzie and migrates primarily through the western United States to Mexico and Guatemala (AOU, 1957).

Short-billed Dowitcher ***Limnodromus griseus caurinus***

Wirtz collected an immature female (USNM 496057), one of two dowitchers seen, Oct. 30, 1964, on Sand Island, Midway Atoll. The specimen, identified as *L. g. caurinus* by Laybourne, constitutes the first record of the occurrence of the short-billed dowitcher in the Hawaiian area. *Limnodromus g. caurinus* breeds in southern Alaska (Pitelka, 1950) and migrates south along the Pacific coast of North America to at least Baja California (AOU, 1957).

Pintail Snipe ***Capella stenura***

On Jan. 13, 1964, King collected a male (USNM 493341) in an open grassy area on Green Island, Kure Atoll. No pintail snipes have been reported previously from any of the islands of the Hawaiian area. This species breeds from Siberia to northwestern Manchuria and winters south to Malaya (Vaurie, 1965).

Common Snipe ***Capella gallinago delicata***

Schreiber collected an immature male (USNM 496778), later identified as *C. g. delicata* by Thompson, from an open field on Green Island, Kure Atoll, Sept. 25, 1966. A snipe, probably this bird, had been seen daily for the preceding five days.

This subspecies of the common snipe breeds from northwestern Alaska east to central Labrador and south to California, northern West Virginia, and Connecticut. It winters south to Central America, Venezuela, and southern Brazil (AOU, 1957) and has been reported several times from the main Hawaiian Islands (Munro, 1944). In the Leeward Chain, it has been reported previously from Laysan (Bryan and Greenway, 1944) but this record is erroneous (Bailey, 1956).

Knot ***Calidris canutus***

Clapp collected a very fat adult female (USNM 494130), Mar. 15, 1965, on Southeast Island, Pearl and Hermes Reef. Another knot was seen on Sand Island, Midway Atoll, Aug. 28, 1965, by three POBSP members. The latter bird was in breeding plumage and the lengthy

description in the observers' field notes adequately confirms the identification. The specimen from Pearl and Hermes constitutes the first specimen record from either the main Hawaiian or Hawaiian Leeward Islands. The sight record of the knot from Midway constitutes the first record of this species' occurrence there. The only other record from the entire Hawaiian area is a knot seen on Oahu Oct. 29, 1961 (Ord, 1962).

Knots breed in arctic North America east to Greenland, the New Siberian Islands, and Wrangel Island, and migrate south principally along the coasts of the Old World (AOU, 1957).

Sanderling ***Crocethia alba***

Although a regular winter resident in the Hawaiian area (Bryan and Greenway, 1944), sanderlings nonetheless are unrecorded from several of the atolls and islands in the Hawaiian Leeward Chain. Specimens have been taken on Laysan Island and French Frigate Shoals (Bailey, 1956), and sight records have been reported from Midway Atoll (Donaghho, 1953–54; Kenyon and Rice, 1957) and Kure Atoll (Robbins, 1966).

To these records we add specimen records from Green Island, Kure Atoll (USNM 496975, Jan. 16, 1966), and Sand Island, Midway Atoll (USNM 493259, Sept. 14, 1963; USNM 493250, 493252, Nov. 13, 1963; USNM 493251, Jan. 12, 1964). New sight records made by the POBSP include the following:

Lisianski Island: An estimated 20 sanderlings seen Mar. 12–13, 1963, and Mar. 11–12, 1964; two seen Sept. 18, 1964; five seen Mar. 13, 1965; eight seen Mar. 20, 1967.

Pearl and Hermes Reef, Southeast Island: One sanderling seen Feb. 26, 1963; two seen Mar. 13, 1964; one seen Mar. 21, 1965; two seen Mar. 21–23, 1967. Seal Island: A "few" seen Mar. 5, 1963; one seen Mar. 22, 1967. Grass Island: One seen Feb. 5, 1963; three seen Mar. 14, 1964; two seen Aug. 18, 1964; three seen Mar. 19, 1965. Sand Island: One seen Mar. 14, 1964. Humphrey Island: One seen Aug. 18, 1964. North Island: One seen Aug. 19, 1964.

Western Sandpiper ***Ereunetes mauri***

Huber collected a moderately fat, male western sandpiper (USNM 497298) Dec. 30, 1966, on a sandy beach at Green Island, Kure Atoll. Three sight records of western sandpipers have been reported previously from Oahu in the main Hawaiian Islands (Udvardy, 1961b; Rockafellow, 1964), but no specimens have been collected previously in that area and none have been reported from the Hawaiian Leeward Islands.

Western sandpipers breed along the coasts of western and northern Alaska and winter from the coast of California, the coasts of the Gulf of Mexico and North Carolina south on both coasts of Mexico to northern South America (AOU, 1957).

Pectoral Sandpiper ***Erolia melanotos***

In the last six years (1961–1966) at least 12 sight records of pectoral sandpipers have been reported from the main Hawaiian Islands in "Elepaio," and several sight records have been reported previously from Midway Atoll (see Bailey, 1956, and Udvardy, 1961b, for a summary of these records). None of these records have been verified by the collection of specimens.

Four specimens have been collected in the main Hawaiian Islands, two from Hawaii (Henshaw, 1902), and two from Oahu (Bryan, 1905; and a previously unreported POBSP specimen, USNM 493229, collected Oct. 4, 1963, at Pearl Harbor, Oahu). No specimens have been reported previously from the Leeward Chain.

Specimens of pectoral sandpipers collected by POBSP personnel from the Hawaiian Leeward Islands are listed by each island as follows:

Kure Atoll, Green Island: USNM 493227, Oct. 14, 1963; USNM 494322, 494323, 494324, Sept. 25, 1964; USNM 497221, 497222, Sept. 21, 1966.

Midway Atoll, Sand Island: USNM 493226, Sept. 17, 1963; USNM 494325, Oct. 31, 1964; USNM 497218, 497219, 497220, Sept. 29, 1966.

Pectoral sandpipers breed from the Arctic coast of eastern Siberia across northern North America to Southampton Island and winter primarily in South America. They have been recorded casually from Samoa, Australia, and New Zealand (AOU, 1957).

Sharp-tailed Sandpiper ***Erolia acuminata***

Although there are many sight records of sharp-tailed sandpipers from the main Hawaiian Islands (Udvardy, 1961b; see also miscellaneous field notes in the "Elepaio" for the years 1961–1967) and although at least six specimens have been collected there (Munro, 1944; Rothschild, 1893), few records have been reported from the Hawaiian Leeward Chain.

The POBSP has many sight records of both this species and the similar appearing pectoral sandpiper (*Erolia melanotos*) from the Hawaiian Leeward Islands, but on several occasions a shorebird identified in the field as a sharp-tailed sandpiper has proven to be a pectoral sandpiper in the hand. We thus include here only the verified POBSP specimen records as follows:

Kure Atoll, Green Island: USNM 493231, Oct. 7, 1963; USNM 493232, Oct. 29, 1963.

Midway Atoll, Sand Island: USNM 493475, Nov. 13, 1963; USNM 493248, Dec. 17, 1963; USNM 495889, Oct. 31, 1964.

Laysan Island: USNM 496697, Oct. 21, 1966.

Pearl and Hermes Reef, Southeast Island: USNM 497216, 497217, Sept. 27, 1966.

One specimen has been reported previously from Laysan (Rothschild, 1893) and two specimens and several sight records have been reported from Midway Atoll (Bailey, 1956; Fisher, 1965). No sharp-tailed sandpipers have been reported previously from either Kure Atoll or Pearl and Hermes Reef.

This species breeds in northern Siberia and winters from New Guinea, New Caledonia, and the Tonga Islands south to Australia and Tasmania (AOU, 1957).

Dunlin ***Erolia alpina sakhalina***

A male dunlin (USNM 494127) was collected Mar. 15, 1965, by Clapp while the bird was feeding in a small *Sesuvium*-bordered pool on Southeast Island, Pearl and Hermes Reef. Two other dunlins, a male and a female (USNM 493477, Jan. 12, 1964; USNM 496781, Mar. 28, 1965), were collected on Sand Island, Midway Atoll. Lewis collected a fourth specimen (USNM 496782), a female, Nov. 15, 1965, on Green Island, Kure Atoll. The three specimens for which fat data is available (494127, 496781, 496782) were all very fat. All specimens were subsequently referred to the race *E. a. sakhalina* by Laybourne.

Sight records of dunlins have been reported previously from Sand Island, Midway Atoll (Kenyon and Rice, 1957), and Laysan Island (Rothschild, 1893–1900) in the Hawaiian Leeward Islands, and a specimen has been taken on Laysan (Bailey, 1956). The POBSP specimens from Pearl and Hermes and Kure constitute the first distributional records from those atolls and the birds collected on Midway are the first specimens reported from there.

The subspecies *E. a. sakhalina* breeds in northern Siberia and winters south through Japan to India (Vaurie, 1965).

Ruff ***Philomachus pugnax***

On Green Island, Kure Atoll, Dec. 11, 1963, Clapp saw a ruff feeding at a rainwater puddle in association with golden plovers and ruddy turnstones. A male (USNM 493332), collected on the beach the same day, had heavy fat deposits and was in winter rather than prenuptial plumage (see Kozlova, 1956).

This species breeds in the Old World from northern Norway to southern Siberia and is casual or accidental on St. Lawrence Island and

in the Pribilof Islands (AOU, 1957). None have been reported previously from any of the Central Pacific islands.

Northern Phalarope ***Lobipes lobatus***
(Red-necked Phalarope)

Two very fat northern phalaropes in winter plumage, a male (USNM 494118) and a female (USNM 494119), were collected on Laysan Island, Mar. 7, 1965, by Clapp. Both were feeding actively near large flocks of golden plovers, ruddy turnstones, and wandering tattlers on the south shore of the lagoon. The only known specimen reported previously from the main Hawaiian or Hawaiian Leeward Islands was shot on Kauai during the winter of 1892–93 (Henshaw, 1902).

This species is a circumpolar breeder that in the Pacific migrates south to the west coast of South America and south to the Ryukyu Islands, Sundas, and New Guinea (Vaurie, 1965).

Red Phalarope ***Phalaropus fulicarius***
(Grey Phalarope)

Sibley saw two red phalaropes in the lagoon on Laysan, Feb. 11, 1963. On Mar. 1, 1964, Fleet found a moderately fat male in winter plumage (USNM 494298) with an injured wing on the beach of Green Island, Kure Atoll. Hackman obtained the carcass of another (USNM 497293) found in the interior of Southeast Island, Pearl and Hermes Reef, Mar. 22, 1967.

This species is the most abundant phalarope in the Hawaiian area and has been recorded from most of the main Hawaiian Islands and from Laysan (Bryan and Greenway, 1944; Bailey, 1956) although very few specimens have been collected. Red phalaropes have not been reported previously from either Kure Atoll or Pearl and Hermes Reef.

These phalaropes breed circumpolarly in the Northern Hemisphere and migrate southward throughout the oceans of both the Eastern and Western Hemispheres (AOU, 1957).

Ring-billed Gull ***Larus delawarensis***

POBSP personnel have obtained specimens of ring-billed gulls from two of the Hawaiian Leeward Islands, from which they had not been recorded heretofore. A female in first nuptial plumage (USNM 493343), found dead on Green Island, Kure Atoll, Feb. 22, 1963, was obtained from Coast Guard personnel by Sibley. Sibley also shot an unsexed ring-billed gull in second winter plumage (USNM 493342) on Humphrey Island, Pearl and Hermes Reef, Mar. 5, 1963.

Munro (1944) reported a specimen from Molokai and another, probably from Maui, in the St. Louis College Collection, Honolulu.

Ring-billed gulls breed throughout much of northern North America and migrate south throughout the interior of the United States. In winter they are found as far south as southern Mexico along the Pacific coast and southern Florida along the Atlantic coast (AOU, 1957).

Herring Gull ***Larus argentatus vegae***

Twelve specimens of herring gulls have been collected in the Leeward Islands by POBSP personnel. All were identified subsequently as *L. a. vegae* by Laybourne, Short, or Thompson. These specimens are as follows:

Kure Atoll: USNM 493348, 493349, 493350, Mar. 10, 1963; USNM 494375, Nov. 10, 1964; USNM 494367, Jan. 20, 1965; USNM 494371, Mar. 8, 1965; USNM 494374, Apr. 1, 1965.

Midway Atoll: USNM 493351, Feb. 25, 1963.

Laysan Island: USNM 493352, Feb. 12, 1963.

Lisianski Island: USNM 493353, Feb. 14, 1963.

Pearl and Hermes Reef, Southeast Island: USNM 493346, Feb. 27, 1963. Kittery Island: USNM 493347, Mar. 5, 1963.

These specimens were all young birds that had not yet attained adult plumage. Six of the gulls (493346, 493348, 493349, 493350, 493351, 494371) were in first winter plumage; four (493347, 493352, 493353, 494374) were in first nuptial plumage; and two (494367, 494375) were in second winter plumage (Dwight, 1901).

Specimens of herring gull have been recorded from Laysan (Bailey, 1956), Oahu (King, 1959a), and Midway (Bryan, 1962b). None have been reported previously from Kure, Lisianski, or Pearl and Hermes Reef.

The subspecies *L. a. vegae* breeds in Siberia and winters as far south on the Asiatic coast as central China and Formosa. It wanders casually to western Alaska, the Aleutians, and British Columbia (AOU, 1957).

Slaty-backed Gull ***Larus schistisagus***

Fleet and Standen collected an adult male in winter plumage Mar. 9, 1965, on Green Island, Kure Atoll (USNM 494373). No slaty-backed gulls have been reported previously from any of the islands of the main Hawaiian or Hawaiian Leeward groups. This species breeds in Northeastern Siberia, south to the northern part of Japan, and winters as far south as the coast of China. It has been recorded in the Aleutians, Pribilofs, and on the coast of Alaska (AOU, 1957).

Glaucous-winged Gull ***Larus glaucescens***

Twelve specimens of glaucous-winged gulls have been collected in the Hawaiian Leeward Islands by POBSP personnel. These are listed by each island as follows:

Kure Atoll, Green Island: USNM 493344, Mar. 10, 1963; USNM 494365, Dec. 24, 1964; USNM 494368, Feb. 1, 1965; USNM 494369, Mar. 1, 1965; USNM 494370, Mar. 7, 1965; USNM 494372, Mar. 9, 1965; USNM 497295, 497223, Dec. 31, 1966.

Pearl and Hermes Reef, Southeast Island: USNM 493345, Feb. 26, 1963. Humphrey Island: USNM 494131, 494132, Mar. 18, 1965.

Lisianski Island: USNM 494133, Mar. 12, 1965.

These specimens were all immature birds. Two (494132, 497223) were in first winter plumage; eight (493344, 493345, 494131, 494133, 494368–494370, 497295) were in first nuptial plumage; one (494372) was molting into second winter plumage; and one (494365) was in second winter plumage (Dwight, 1901).

Three other hitherto unreported glaucous-winged gulls were collected as beach-dried remains in 1923 by Wetmore. One, an adult (USNM 489330), was collected on Seal Island, Pearl and Hermes Reef, Apr. 27, 1923. Two others, immature specimens in too poor condition for accurate age assessment, were obtained on Kure Atoll (USNM 489328, Apr. 18, 1923) and Necker Island (USNM 489329, June 18, 1923).

Specimens have been reported from Hawaii and Laysan (Henshaw, 1900, 1902). An adult was seen at French Frigate Shoals on Mar. 19–20, 1954 (Richardson, 1954), and two were seen at Kure Atoll Feb. 3–7, 1963 (Robbins, 1966). A single glaucous-winged gull was found dead at Midway Atoll Mar. 7, 1957 (Kenyon and Rice, 1957). No glaucous-winged gulls have been reported previously from Pearl and Hermes Reef, Lisianski, or Necker.

This species breeds from the Komandorskie, Pribilof, and Aleutian Islands through Alaska to northwestern Washington and winters south to northwestern Mexico and Japan (AOU, 1957).

Glaucous Gull ***Larus hyperboreus***

During January 1965, POBSP personnel saw two gulls, both presumably this species, on Green Island, Kure Atoll. One, a male in first winter plumage (USNM 494366), collected on January 17, was identified as a glaucous gull. An earlier (and not previously reported) record from Kure Atoll is a beach-dried mummy (USNM 489331)

that Wetmore collected Apr. 18, 1923. The specimen is in too poor condition to be aged accurately, but it was in an immature plumage.

On Mar. 31, 1967, Hackman collected a wing (USNM 497294) from a badly decayed carcass of an adult glaucous gull found near the end of the overrun runway on Sand Island, Midway Atoll.

Specimens have been collected previously on Kauai and Maui (Henshaw, 1902), Laysan (Bailey, 1956), and Lanai (Munro, 1944), and sight records have been reported from Midway (Kenyon and Rice, 1957). No glaucous gulls have been reported previously from Kure. The specimen from Midway listed above is the first reported from that island.

The glaucous gull is a circumpolar breeder that winters as far south in the Pacific as California, Japan, and northern China (AOU, 1957).

Franklin's Gull ***Larus pipixcan***

Amerson found the remains of a Franklin's gull near the runway on Tern Island, French Frigate Shoals, Aug. 4, 1965 (USNM 496203). Judging from the markings on the primaries and from the coloration and condition of the other wing feathers, the gull had been molting into adult plumage when it died.

The only other records from the Hawaiian area are a specimen from Maui, two sight records from Oahu, and an adult taken two miles off Kauai (King, 1959b).

This species breeds in northwestern North America from southeastern Alberta to South Dakota, Minnesota, and Iowa. It winters along the Pacific coast of Central and South America and along the coast of the Gulf of Mexico (AOU, 1957).

Black-legged Kittiwake ***Rissa tridactyla***

On Dec. 24, 1964, two adults and one immature were seen at Green Island, Kure Atoll. The immature, a female in first winter plumage (USNM 494296), was found injured on the beach Dec. 30, 1964, and was collected by Stadel and Kepler. On Mar. 29, 1967, another specimen (USNM 497296), the remains of a mummified carcass of an adult bird, was collected on Green Island by Hackman. Hackman had seen another adult black-legged kittiwake flying over the island the previous day.

In March 1965 the remains of three black-legged kittiwakes were found on Pearl and Hermes Reef. Two, an adult in winter plumage (USNM 496205) and the wing of an immature bird (USNM 497375), were found on Southeast Island on March 15. The remains of the third kittiwake, an immature (USNM 496206), were found on Grass Island on March 19. Neither of the remains of the two immature

birds are complete enough for accurate aging, but the markings on the wings indicate that both birds were less than two years old.

Bryan and Greenway (1944) list this species from Laysan Island on the basis of a fragmentary specimen in the Bernice P. Bishop Museum. No observations or specimens of black-legged kittiwakes have been reported previously from either Kure Atoll or Pearl and Hermes Reef.

Black-legged kittiwakes are circumpolar breeders that winter south to Japan and northwestern Baja California in the Pacific (AOU, 1957).

Gray-backed Tern ***Sterna lunata***
(Spectacled Tern)

POBSP personnel have recorded many observations of gray-backed terns on various islets of Pearl and Hermes Reef, from whence the species has not been reported previously. These observations are briefly summarized below:

Southeast Island: Two hundred adults seen Feb. 26–Mar. 8, 1963; 1000 adults, 40 nestlings, and many eggs seen June 18–22, 1963; 30 adults seen Mar. 13, 1964; 350 adults, 250 nestlings, and one egg seen Aug. 16–19, 1964; 30 adults and 10 immatures seen Sept. 16–17, 1964; 500–600 adults seen Mar. 15–17, 1965; 40 adults and seven nestlings seen Sept. 25–27, 1966; about 75 courting adults Mar. 21–23, 1967.

Seal Island: One hundred adults and 40 nestlings seen June 26, 1963; 4–5 adults seen Mar. 14, 1964; 15 adults seen Aug. 18, 1964; 200–300 adults and 50 eggs seen Mar. 18, 1965; 25 adults seen Mar. 22, 1967.

Kittery Island: One seen Aug. 18, 1964.

North Island: Two seen June 23–24, 1963; six seen Aug. 19–20, 1964.

Bird Island: One seen Aug. 18, 1964.

Gray-backed terns are common residents on most of the islands of the Hawaiian Leeward Islands (Bryan and Greenway, 1944).

Blue-gray Noddy ***Procelsterna cerulea***

Sibley and Amerson saw from eight to 10 blue-gray noddies on Gardner Pinnacles June 16, 1963. In the Hawaiian Leeward Islands, blue-gray noddies have been reported breeding on Nihoa, Necker, La Perouse Pinnacle at French Frigate Shoals, and Kaula (Richardson, 1957; Bryan and Greenway, 1944). None have been reported previously from Gardner Pinnacles.

Brown Noddy ***Anous stolidus***
(Common Noddy)
(Noddy Tern)

On June 16, 1963, Sibley and Amerson estimated that 5400 brown noddies (including 400 nestlings) were present on Gardner Pinnacles. Several hundred of these noddies were seen flying around the island by Hackman from offshore Mar. 15, 1967. Brown noddies are common breeding birds in the Hawaiian Leeward Chain (Richardson, 1957) but have not been reported heretofore from Gardner Pinnacles.

Black Noddy ***Anous tenuirostris***
(White-capped Noddy)
(Hawaiian Noddy)

Sibley and Amerson found one nestling and 15 adult white-capped noddies on Gardner Pinnacles June 16, 1963. White-capped noddies occur on many Pacific islands and have been recorded breeding on most of the islands of the Leeward group (Richardson, 1957). Their occurrence and breeding on Gardner Pinnacles have not been reported previously.

Horned Puffin ***Fratercula corniculata***

During the months of January, February, and March 1963, POBSP personnel found 16 specimens of horned puffins on the Hawaiian Leeward Islands. Only two of these were returned to the U.S. National Museum. One of these specimens (USNM 493357) was an adult in winter plumage that was found dead on the beach, Feb. 20, 1963, on Green Island, Kure Atoll. The other specimen (USNM 497918), a skeleton taken on Laysan Island, Feb. 12, 1963, constitutes the first record of the occurrence of horned puffins on that island. From January 26 through February 25, 12 puffins were found on Sand and Eastern Islands, Midway Atoll. Eleven were dead, the twelfth, captured January 26, was banded and released. Another dead puffin was found on Grass Island, Pearl and Hermes Reef, on March 5, and another was found on North Island, Pearl and Hermes Reef, the following day. These observations of puffins on Pearl and Hermes Reef constitute the first records of their occurrence there.

Fisher (1965) reported that in January 1963 seven dead horned puffins had been found on Midway Atoll and that one live horned puffin had been found on the beach at Kure Atoll. Robbins (1966) reported finding five carcasses on Kure Atoll in the period Feb. 3–7, 1963. It seems likely that some of the puffins reported by these authors may have been the same birds as some of those found by POBSP personnel.

Horned puffins breed from northeastern Siberia and the Komandorskie Islands east to the islands of the Bering Sea, the Aleutians, and the Alaska Peninsula. They winter in the breeding range and south to Oregon and have been recorded in Japan and California (AOU, 1957).

Short-eared Owl ***Asio flammeus (flammeus?)***

A short-eared owl (or owls) was recorded frequently on Green Island, Kure Atoll, during POBSP studies there. One was seen in the months of October and November 1963, Febraury, March, and December 1964, and January, February, and March 1965. Two owls were seen on Dec. 24, 1964.

An injured bird (USNM 494362), the first specimen from Kure Atoll, was collected by Fleet on Feb. 12, 1964. One might expect that this owl had wandered to Kure from the endemic population (*A. f. sandwichensis*) in the main Hawaiian Islands or possibly from the population (*A. f. ponapensis*) in the Caroline Islands.

Both these insular populations are smaller than the Holarctic form, *A. f. flammeus*. Wing measurements of two *A. f. ponapensis* given by Mayr (1945) are 295 and 307 mm, and wing measurements of two additional specimens from the Caroline Islands in the U.S. National Museum are 286 and 278 mm. Wings of six specimens of *A. f. sandwichensis* in the U.S. National Museum, four reported by Bryan (1901), and two recorded in the "Catalogue of Birds in the British Museum" (Sharpe, 1875) range from 282 to 305 mm and average 295 mm.

The wing of the present specimen, however, measures 315 mm and agrees well with the range and mean (300–326 mm, 312 mm) given by Ridgway (1914) for 16 females of the typical race, *A. f. flammeus*.

The tail measurement of the Kure bird (151 mm) also agrees better with measurements of *A. f. flammeus* than it does with *A. f. sandwichensis*. Ridgway (1914) gives a range and mean for 16 female *A. f. flammeus* as 142–158.5 mm and 152 mm. The range and mean of 12 *A. f. sandwichensis* (those referred to above) is 134–158 mm and 142 mm. On the basis of these measurements we tentatively assign the present specimen to the form *A. f. flammeus*.

Short-eared owls have been reported present on Kure by two other observers. Fisher (1965) visited Kure in December 1963 and saw an owl at that time. Robbins (1966) saw two of these owls on Kure in the period Feb. 2–4, 1962, and believed that they might be breeding there. POBSP observers, however, have made no observations that would support this conjecture.

The form *A. f. flammeus* breeds in the Old World from Iceland east to Sakhalin and breeds in North America from northern Alaska east

to Labrador and south to southern California, southern Illinois, and tidewater areas of Virginia. In Asia it winters south to northern India and southeastern China and on the Pacific coast of North America winters as far south as Baja California and Oaxaca (AOU, 1957).

Skylark ***Alauda arvensis pekinensis***

Two small dark birds with white outer tail feathers were seen on Green Island, Kure Atoll, for over a week before a specimen (USNM 493504) was finally collected Oct. 7, 1963. The bird, a female, flushed with a group of golden plovers from a hard-surfaced roadway.

The specimen was subsequently referred to Dr. George E. Watson for subspecific determination. He informed us (pers. comm.) that

> the Skylark introduced on the Hawaiian Islands is usually listed as "probably *Alauda a. arvensis*," the European population, which is dark brown above and rich rufous buff below. The specimen from Kure, however, has the black central portions of the back feathers far more extensive than in any European specimens and in this character resembles specimens from western China. Wing length (114 mm in ♀) and its pointed shape (fourth primary from outside 8 mm shorter than third) agree with the population *pekinensis* which breeds in northeastern Siberia, Kamchatka, and the Kuriles.

Skylarks (presumably *Alauda a. arvensis*) were introduced to the main Hawaiian Islands from England and New Zealand in the late 19th and early 20th centuries. A number of birds thought to be *A. a. japonica* also were introduced to these islands in 1934 but did not become established (Bryan, 1958).

Barn Swallow ***Hirundo rustica gutteralis***
(Swallow)

Three POBSP personnel saw two barn swallows on Green Island, Kure Atoll, Sept. 25, 1964. Both were subsequently shot, but the specimens fell into dense vegetation and could not be found. On Mar. 27, 1965, Wirtz collected a barn swallow (USNM 495966, an unsexed specimen) that Wetmore later identified as *H. r. gutteralis*. Still another barn swallow was seen on Eastern Island, Midway Atoll, Feb. 13, 1965 (Anderson), and possibly on Mar. 1, 1963 (Kepler). No barn swallows have been seen or collected previously in either the main Hawaiian or Hawaiian Leeward Islands.

The race *H. r. gutteralis* is found on migration in Japan and the Ryukyu, Bonin, Volcano, and Caroline Islands (Vaurie, 1959), suggesting that Wirtz's specimen may have been a straggler from the northwest.

Water Pipit ***Anthus spinoletta japonicus***

Ludwig collected a very fat water pipit (USNM 493506) Oct. 25, 1963, on Green Island, Kure Atoll, as the bird ran on the north beach along the edge of a stand of *Scaevola*. The specimen, a female in winter plumage, was identified as *A. s. japonicus* by Laybourne.

This subspecies breeds in Siberia and migrates through Mongolia, Japan, and the Ryukyus (Vaurie, 1959). No water pipits have been seen or collected previously on any of the islands of the main Hawaiian or Hawaiian Leeward groups.

Red-throated Pipit ***Anthus cervinus***

Ludwig shot a winter-plumaged female pipit (USNM 493505) as it flew over *Scaevola* on Green Island, Kure Atoll, Sept. 26, 1963. Red-throated pipits have not been reported previously from any of the main Hawaiian or Hawaiian Leeward Islands.

This species is found in northeastern Siberia and has been recorded as an accidental in the Aleutians (Vaurie, 1959), California, and Baja California (McCaskie, 1966). There is one breeding record for Alaska as well (Bailey, 1932).

Mockingbird ***Mimus polyglottos***

On Aug. 4, 1965, Amerson saw two mockingbirds in vegetation along the runway on Tern Island, French Frigate Shoals. On Aug. 18, 1965, Huber collected a male in juvenal plumage with fully grown flight feathers (USNM 495887). Mockingbirds, which were introduced into the main Hawaiian Islands in 1928 (Munro, 1944), were first seen on Tern Island, Oct. 19, 1960, when Woodside (1960, unpubl.) observed two birds in vegetation south of the runway.

House Sparrow ***Passer domesticus***

Woodward observed a male house sparrow on three different occasions June 18–20, 1966, on Green Island, Kure Atoll. Possibly the sparrow had arrived on the island on a cargo plane that had arrived from Oahu, June 15, 1966.

This widespread species was introduced to Hawaii before 1870 (Munro, 1944) and is now common on all the main islands of the Hawaiian group. None have been reported previously from Kure Atoll.

Snow Bunting ***Plectrophenax nivalis townsendi***

Sibley shot a female snow bunting Mar. 10, 1963, on Green Island, Kure Atoll. The snow bunting (USNM 493358), subsequently identi-

fied as *P. n. townsendi* by Bridge, was in winter plumage. The specimen constitutes the first distributional record of the occurrence of this species on any of the islands of the Hawaiian area.

Another snow bunting, probably this species, was seen by POBSP personnel on Midway Atoll during the winter of 1964–65.

Plectrophenax n. townsendi breeds from the Pribilof and Aleutian Islands to the Alaskan Peninsula and the Alaskan range. It winters in part in the breeding area but is found also in southeastern Alaska and the northwestern United States (Gabrielson and Lincoln, 1959).

TABLE 1.—*Summary of new records of birds from the Hawaiian Leeward Islands* (r=first sight record from an island; sr=first specimen record from an island; SR=first specimen confirmation of a species previously known only from sight records for both the main Hawaiian and Hawaiian Leeward Islands chain; *SR*=specimen record is for a species which has not been heretofore reported from any of the main Hawaiian Islands or Leeward Hawaiian Islands chain)

	Kure	Midway	Pearl and Hermes Reef	Lisianski	Laysan	Gardner Pinnacles	French Frigate Shoals	Necker	Nihoa
Northern fulmar	sr						sr		
Murphy's petrel	*SR*						sr		
Kermadec petrel	*SR*								
Bulwer's petrel			r			r			
Sooty shearwater	sr								
Christmas shearwater			sr						
Little shearwater		*SR*							
Leach's storm petrel	sr								
Sooty storm petrel	sr						r		
Red-billed tropicbird									*SR*
Red-tailed tropicbird			r						
White-tailed tropicbird	r								
Red-footed booby						r			
Brown booby						r			
Black-crowned night heron	sr								
Garganey teal		SR							
Common teal		sr							
European widgeon	sr	SR							
American widgeon		sr							
Shoveler		sr							
Tufted duck	sr								
Marsh hawk		sr							
Peregrine falcon	SR	r		r					
American coot							sr		
Black-bellied plover	r			sr					
American golden plover			r					r	
Dotterel	*SR*								
Bar-tailed godwit	sr			sr					
Marbled godwit					*SR*				
Lesser yellowlegs	SR				r				
Greater yellowlegs					SR				
Wood sandpiper	sr	SR?							
Polynesian tattler		*SR*							
Wandering tattler			r			r			
Ruddy turnstone			sr						
Long-billed dowitcher	SR								
Short-billed dowitcher		*SR*							
Pintail snipe	*SR*								

TABLE 1—Continued

	Kure	Midway	Pearl and Hermes Reef	Lisianski	Laysan	Gardner Pinnacles	French Frigate Shoals	Necker	Nihoa
Common snipe	sr								
Knot			SR						
Sanderling	sr	sr	r	r					
Western sandpiper	SR								
Pectoral sandpiper	sr	sr							
Sharp-tailed sandpiper	sr	sr	sr						
Dunlin	sr	sr	sr						
Ruff	*SR*								
Red phalarope	sr		sr						
Northern phalarope					sr				
Ring-billed gull	sr		sr						
Herring gull	sr		sr	sr					
Slaty-backed gull	*SR*								
Glaucous-winged gull	sr		sr	sr					
Glaucous gull	sr	sr						sr	
Franklin's gull							sr		
Black-legged kittiwake	sr		sr						
Gray-backed tern			r						
Blue-gray noddy						r			
Brown noddy						r			
Black noddy						r			
Horned puffin			r		sr				
Short-eared owl	sr								
Skylark	sr								
Barn swallow	r	*SR*							
Water pipit	*SR*								
Red-throated pipit	*SR*								
Mockingbird							sr		
House sparrow	r								
Snow bunting	*SR*								

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